

**METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR
IMPLEMENTING POINTER AND STAKE MODEL FOR FRAME
ALTERATION CODE IN A NETWORK PROCESSOR**

Abstract of the Disclosure

- 5 A method, apparatus and computer program product are provided for
implementing a pointer and stake model for frame alteration code in a
network processor. A current pointer and a stake are provided for a packet
selected for transmit. The current pointer is maintained for tracking a current
position for frame alteration operations in the packet. The stake is
10 maintained for tracking a start of a current header for frame alteration
operations in the packet. The current pointer is used by frame alteration
code instructions to specify a sequence of operations relative to the current
pointer. The specified frame alteration sequence is compact in terms of
code size to operate on data within a small window of bytes. Advance
15 pointer instructions allow the current and stake pointers to be advanced an
arbitrary number of bytes into the packet.